

Fig.1

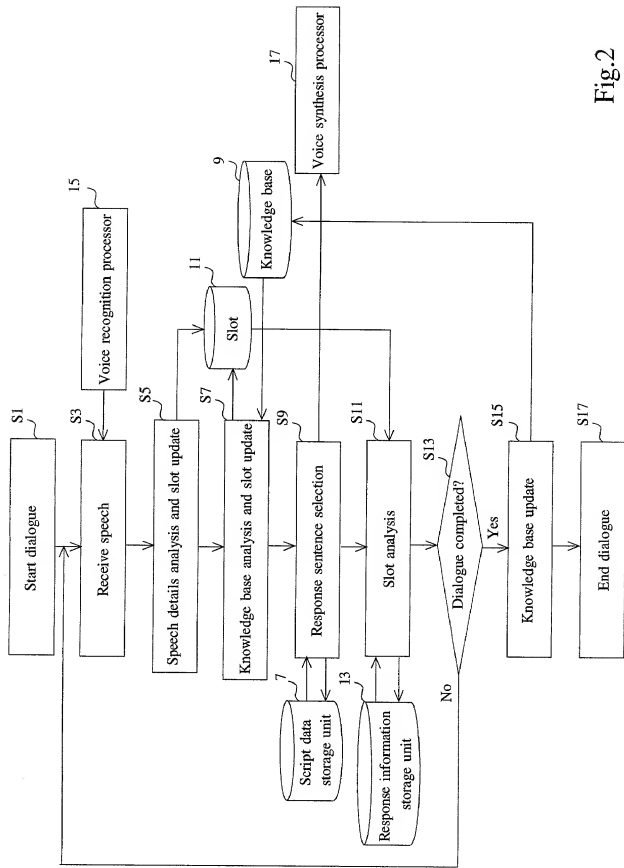


Fig.2

09739644-12000

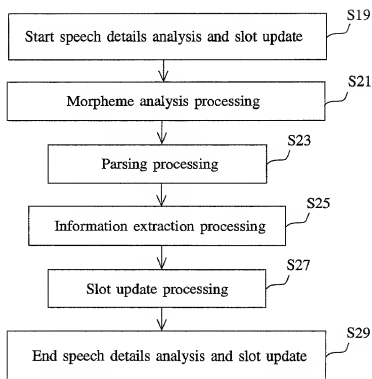


Fig.3

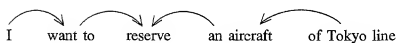


Fig.4A

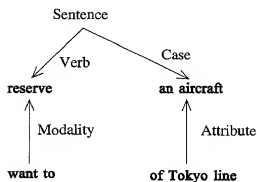


Fig.4B

2019年11月

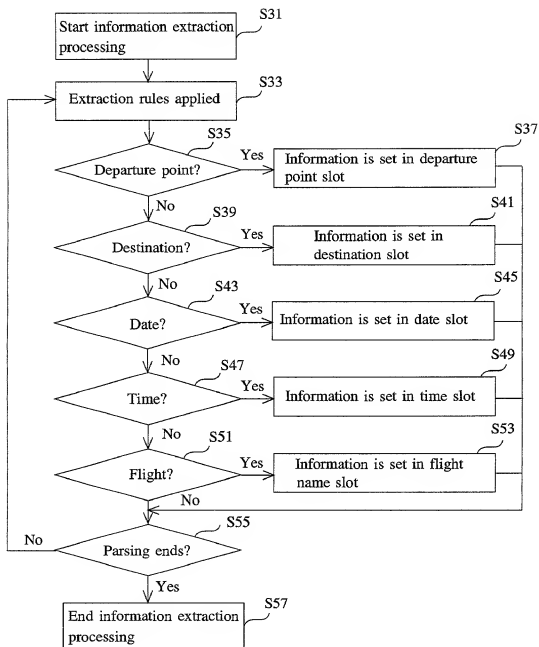


Fig.5

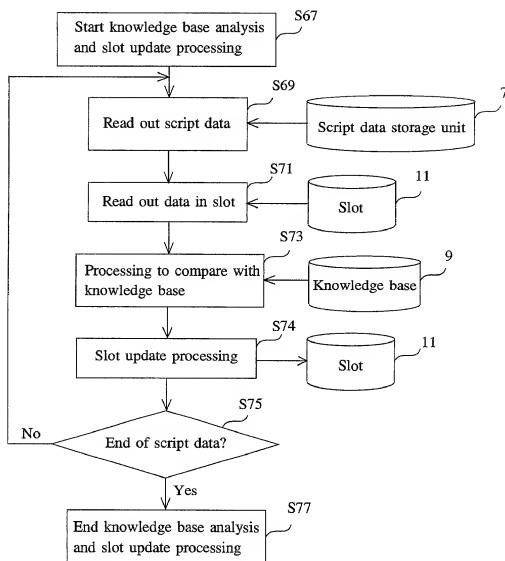


Fig.6

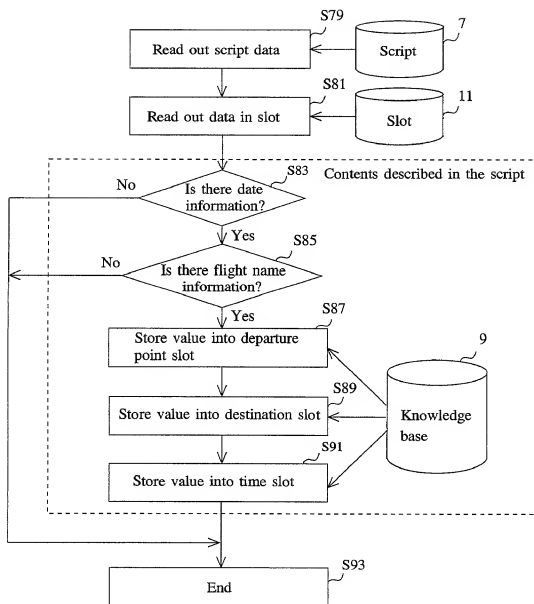


Fig.7

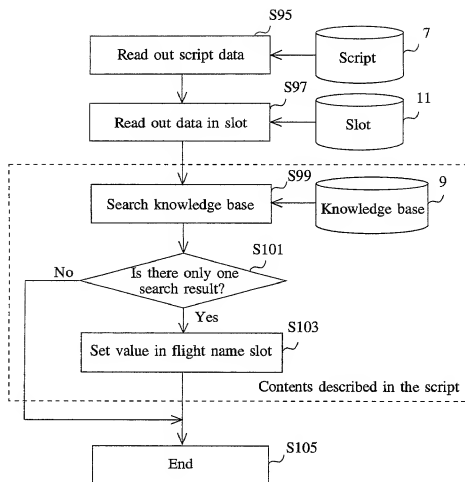


Fig.8

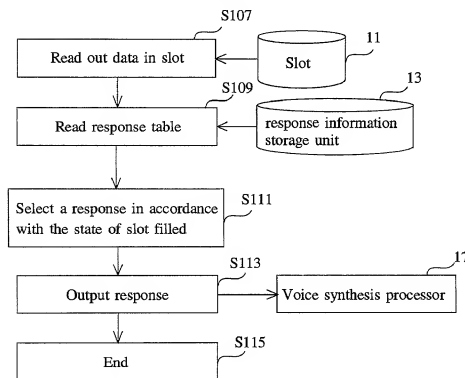


Fig.9

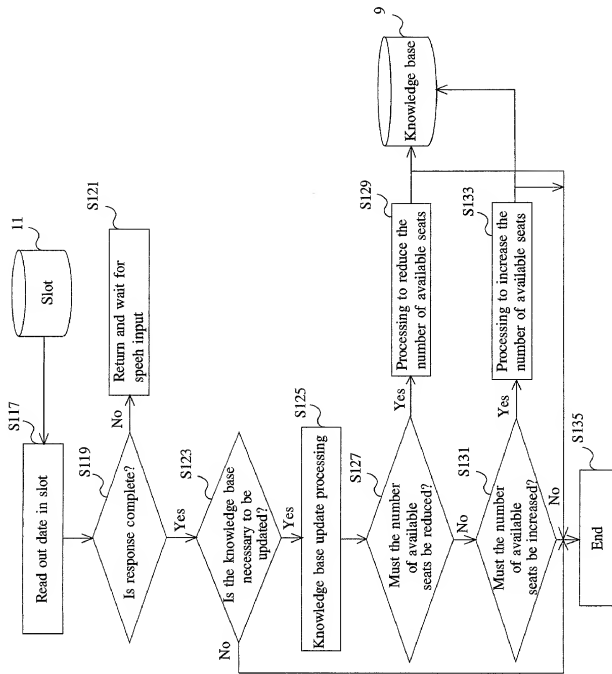


Fig.10

Date	Time	Departure point	Destination	Flight name	Available seats
6/5	10:00	Haneda	Fukuoka	123	10
6/5	10:00	Haneda	Osaka	234	5
6/5	10:10	Haneda	Sapporo	456	20
6/5	12:00	Haneda	Fukuoka	124	80
6/5	18:30	Haneda	Fukuoka	128	120

Fig.11

Slot status				Response
Date	Flight name	Departure point	Destination	
×	×	×	×	Please specify the flight you would like to board.
○	×	×	×	Please specify your departure point.
○	○	×	×	Please specify your departure point and your destination.
		⋮		⋮
○	×	×	○	Please specify your departure point .
		⋮		⋮
○	○	○	○	Thank you for your reservation.

Fig.12

Source of speech	Dialogue contents	Date	Flight name	Departure point	Destination	Notes
Speaker	I would like to make a flight reservation.	-	-	-	-	First speech
Dialogue system	Please specify the flight you would like to board.	x	x	x	x	
Speaker	I would like to go to Fukuoka on June 6.	○	-	-	○	Reply from knowledge base
Dialogue system	Please specify your departure point.	○	x	x	○	
Speaker	I would like a flight leaving Tokyo in the morning.	○	-	-	○	
Knowledge base		○	11AM	○	○	
Dialogue system	There is an 11am flight.	○	○	○	○	End of the dialogue
Speaker	That will be fine.	○	○	○	○	
Dialogue system	Thank you very much.	○	○	○	○	

Fig.13

Source of speech	Dialogue contents	Date	Flight name	Departure point	Destination	Notes
Speaker	I would like to make a flight reservation.	-	-	-	-	
Dialogue	Please specify the flight you would like to board.	x	x	x	x	First speech
Speaker	I would like to go to Fukuoka.	-	-	-	o	
Dialogue system	When would you like to board the flight?	x	x	x	o	
Speaker	Tomorrow morning, please.	Tomorrow	x	x	o	
Extraction rule	(Tomorrow ← (Today: 7TH) + 1)	o	x	x	o	"In the morning" is stored temporarily
Dialogue system	Please specify your departure point.	o	x	x	o	
Speaker	I would like a flight leaving from Tokyo.	o (In the morning)	o	x	o	
Knowledge base		o	11AM	o	o	Reply from knowledge base
Dialogue system	There is a flight at 11 o'clock.	o	o	o	o	
Speaker	That will be fine.	o	o	o	o	
Dialogue system	Thank you very much.	o	o	o	o	End of the dialogue

Fig.14